

Appl. No. : 10/821,806  
Filed : April 9, 2004

### AMENDMENTS TO THE CLAIMS

1. **(Original)** A plant cultivation system for growing terrestrial plants in saline water, comprising:

a plant support comprising a buoyant portion; and

at least one terrestrial plant in contact with the plant support, wherein the plant support is buoyant in the saline water, and wherein and at least a portion of the plant contacts the saline water.

2. **(Original)** The system of claim 1, wherein the saline water comprises water selected from the group consisting of seawater, brackish water, lake water, groundwater, pondwater and water in a reclamation, remediation, or cropping system.

3. **(Original)** The system of claim 1, wherein the saline water is in a location selected from the group consisting of open ocean, a coastal area, an estuary, a delta, a pond, a sump pond, a lake, an aquifer, a water reclamation facility, a phytoremediation site, a harbor, a marine agriculture farm, and a desalination facility.

4. **(Original)** The system of claim 1, wherein the saline water further comprises a contaminant selected from the group consisting of a pesticide, an organic pollutant, a PCB, a hydrocarbon, a metal ion, nitrogen, phosphorous, and potassium.

5. **(Original)** The system of claim 1, wherein the metal ion is selected from the group consisting of lead, mercury, cadmium, arsenate, copper, and zinc.

6. **(Original)** The system of claim 1, wherein the plant support comprises a sheet material in contact with a buoyant edge or frame.

7. **(Original)** The system of claim 1, wherein the plant support comprises a growth medium.

8. **(Original)** The system of claim 7, wherein the growth medium is at least partially contained in a housing.

9. **(Original)** The system of claim 8, wherein the buoyant portion is selected from at least one of the group consisting of: the growth medium and the housing.

10. **(Currently amended)** ~~A buoyant platform for growing terrestrial plants in saline water, comprising: a~~ The system of claim 6, wherein said sheet is capable of being suspended at or near a surface of a body of saline water; and wherein at least one buoyant support

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member is in contact with the sheet; ~~and at least one terrestrial plant, plant part, or seed positioned in contact with the sheet such that at least a part of the terrestrial plant, plant part, or seed can also contact the saline water.~~

11. **(Currently amended)** The ~~buoyant platform system~~ of claim 10, wherein the at least one buoyant support member forms a supporting structure for the platform.

12. **(Currently amended)** The ~~buoyant platform system~~ of claim 10, wherein the buoyant support member comprises a material selected from the group consisting of a natural material, a synthetic material, wood, bamboo, plastic, polypropylene, steel, fiberglass, foam, plastic, and rubber.

13. **(Currently amended)** The ~~buoyant platform system~~ of claim 10, wherein the sheet comprises a material selected from the group consisting of: shade cloth, a plastic film, netting, a textile, ground cover, screen, a woven material, a nonwoven material, bubble wrap, and styrofoam.

14. **(Currently amended)** The ~~buoyant platform system~~ of claim 10, wherein a space for growth of a terrestrial plant is present in a region between two buoyant support members.

15. **(Currently amended)** The ~~buoyant platform system~~ of claim ~~10~~ 1, further comprising an irrigation system.

16. **(Currently amended)** The ~~buoyant platform system~~ of claim 15, wherein the irrigation system delivers a liquid comprising at least one member of the group consisting of evaporative water, rainwater, transpiration water, and freshwater.

17. **(Currently amended)** The ~~buoyant platform system~~ of claim 16, wherein the irrigation system further delivers at least one material selected from the group consisting of: a fertilizer, a nutrient, a mineral, and a plant growth regulator.

18. **(Currently amended)** The ~~buoyant platform system~~ of claim 17, wherein the irrigation system further comprises means of collecting irrigation water, wherein the irrigation water has a lower salinity than the saline water.

19. **(Currently amended)** The ~~buoyant platform system~~ of claim 17, wherein the irrigation system further comprises means of storing the irrigation water.

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20. **(Currently amended)** ~~A buoyant platform~~ The system of claim 1, for growing terrestrial plants at a surface of a saline body of water, further comprising:

at least one growth medium capable of being suspended at a the surface of the saline body of water, wherein the growth medium comprises at least one terrestrial plant, plant part, or seed; and

at least one buoyant support member supporting the growth medium.

21. **(Currently amended)** ~~The buoyant platform-system~~ of claim 20, wherein the growth medium comprises at least one substance selected from the group consisting of: peat, peat moss, an artificial soil component, natural soil, a soil amendment, a hydrophobic particle, an organic fertilizer, and a plant growth nutrient, and manure.

22. **(Currently amended)** ~~The buoyant platform-system~~ of claim 20, wherein the growth medium is contained in a housing, the housing comprising a material selected from the group consisting of: shade cloth, a plastic film, netting, a textile, ground cover, screen, a woven material, a nonwoven material, bubble wrap, and styrofoam.

23. **(Currently amended)** ~~The buoyant platform-system~~ of claim 20, wherein an evaporation-protective layer is provided at a surface above the growth medium package to inhibit contact of the growth medium with air.

24. **(Currently amended)** ~~A method of growing a terrestrial plant in saline water, comprising: providing a buoyant growth platform capable of being suspended at a surface of a body of saline water; placing plant material in the platform, such that~~ The system of claim 1, wherein said terrestrial plant comprises plant material, wherein at least a portion of the plant material is contacted by the saline water; and further wherein growing at least one plant is grown from the plant material while the platform is afloat in the saline water.

25. **(Currently amended)** ~~The method-system~~ of claim 24, wherein the plant material is selected from the group consisting of a seed, a cutting, a root, a whole plant, and a tuber.

26. **(Currently amended)** ~~The method-system~~ of claim 24, wherein the plant material is contacted with the saline water by at least one of the group consisting of: direct contact, wicking, and irrigation.

27. **(Cancelled)**

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28. (Cancelled)

29. (Currently amended) The ~~method~~system of claim-24\_1, wherein the plant is selected from the group consisting of: *Salicornia spp.*, *Rhizophora mangle*, *Batis maritime*, *Sesuvium portulacastrum*, *Myoporum sandwicense*, *Thespesia populanea*, and *Scaevola taccada*.

30. (Currently amended) The method of claim-24\_1, wherein the plant is a cultivated crop plant.

31. (Cancelled)

32. (Cancelled)

33. (Cancelled)

34. (Cancelled)

35. (Cancelled)

36. (Cancelled)

37. (Cancelled)

38. (Cancelled)

39. (Cancelled)

40. (Cancelled)

41. (Cancelled)

42. (Cancelled)

43. (Cancelled)

44. (Cancelled)

45. (Cancelled)

46. (Cancelled)